Notes from P-16 Mathematics Council Meeting: November 29, 2005
State Board of Education, Andrew Johnson Building, Nashville, Tennessee

Purpose of the Meeting

The November 29, 2005 meeting was called by Dr. Gary Nixon, Executive Director, State Board of Education, as a discussion group to explore policy issues for the SBE perspective related to high school-college mathematics standards. The core group included representatives from the State Board of Education, the State Department of Education, the Tennessee Higher Education Commission, the University of Tennessee System, and the Board of Regents, including:

Gary Nixon, Executive Director, State Board of Education
John Scott, Assistant Commissioner of Education
Linda Doran, Senior Policy Officer, Tennessee Higher Education Commission
Katie High, Student Affairs Officer, University of Tennessee System
Kay Clark, Associate Vice Chancellor for Academic Affairs, Tennessee Board of Regents

Background:

At its October 24, 2005 meeting, the reconstituted State P-16 Council endorsed attention to greater student learning in mathematics as the primary focus for the P-16 state-wide initiative. The State P-16 Council, under the lead of the Tennessee Higher Education Commission, named Dr. Linda Doran, Senior Policy Officer, THEC, as chair of the Curriculum Alignment Committee.

The State P-16 Council initiative encompasses three immediate efforts: (1) high school and freshman year college mathematics curriculum alignment adopted through high school core curriculum and university admission requirement policy changes, (2) interface of curriculum alignment with the goals of the State GEAR UP grant, and (3) comprehensive P-16 data management improvements. Dr. Brian Noland, THEC, will chair committees 2 and 3. The State P-16 Council agenda will be single topic for the January annual joint meeting of the State Board of Education and the Tennessee Higher Education Commission.

November 29, 2005 Agenda:

As the focus for the meeting, Dr. Nixon provided an overview of the importance of increasing rigor in mathematics by amending the high school core. Dr. Doran led the group through a discussion of a THEC draft Action Plan for achieving needed policy changes in both secondary and post-secondary to reach the increased mathematics requirement goal. The attached Draft 2 of the THEC Mathematics Action Plan reflects the changes advised by the workgroup at the November 29 meeting. Members of the group will contact Dr. Doran with other recommended changes.

Key Points from discussion:

The discussion defined points of vital importance in carrying out a school-college collaboration to improve student mathematics readiness for college and career:

(1) **Leadership for Curriculum Alignment**. The State P-16 Council will provide statewide leadership for K-12 and post-secondary collaboration toward increasing student readiness for college and career. The State P-16 Council coordination will enable the SBE, SDE and two systems of higher education to capitalize on cooperative efforts and avoid duplication.

(2) **Mathematics Focus**. Mathematics preparation is a major indicator for student success in college, and the workgroup supported the addition of a 4th unit of high school mathematics. The workgroup also suggested further exploration of using the ACT Benchmark (mathematics subscore 22) as indicator of readiness for college math.

(3) **Attracting and Retaining Teachers**. Attracting and retaining a sufficient number of high school mathematics teachers is a primary concern for instituting the 4th unit. Finding funding for incentives to produce and keep additional math teachers, such as loan forgiveness, scholarship, or tuition waiver, is a high priority.

(4) **Relationship to other State Initiatives**. The curriculum alignment in mathematics, as a State P-16 initiative, should go forward separate from the State High School Reform--High School Redesign movement. Furthermore, curriculum alignment must be student learning outcomes-based and establishing understanding of "what a student should know and be able to do" as readiness for college mathematics should build on current efforts in math curriculum alignment (TBR general education common requirements) and national agendas for high school reform.

(5) **Learn from other states**. The Tennessee State P-16 curriculum alignment in mathematics should adopt, where appropriate, best practices from similar initiatives in other states. The workgroup gave particular attention to the successes achieved by the University of North Carolina System, Kentucky higher education, and the Oklahoma Board of Regents.

(6) **Local P-16 Councils**. The local P-16 Councils, under the leadership of the TBR, will play a major role in building capacity for high school offerings in mathematics.

(7) **Convergence of opportunities for reform afforded through lottery scholarships, GEAR UP, CollegeforTN, and XAP.** Dual Enrollment will play a significant role in access to college mathematics enrollment and attention should be given to minimum state-wide eligibility standards. The State GEAR UP grant will provide a field test opportunity for curriculum and math intervention strategies within the 10 counties selected as GEAR UP sites. The field test may address, in particular, the use of a diagnostic at 7th and 10th grades; piloting new high school mathematics courses, mathematics

interventions; and more focused student counseling as practices tested for replication across the state.

Next Steps:

1. The workgroup will meet again January 10, 2006, at 1:00 in the SBE conference room (Andrew Johnson Building). At that time, members of the group will present the following:
   a. Implications for personnel, such as estimate of the number of net new high school mathematics teachers required with introduction of 4th unit, number of existing mathematics teachers for which professional development must be provided, degree to which dual enrollment may address a staffing gap (Dr. Nixon).
   b. Number of recent high school graduates with 4th unit entering Tennessee public institutions with mathematics placement, current ACT mathematic subscore status of recent high school graduates relative to the ACT Benchmark, and other profiles to project course-taking demands in high school and post-secondary (Dr. Nixon and THEC staff).
   c. Current standards for mathematics endorsement, available personnel (Dr. Scott), and implications for certification change.
   d. Revised THEC draft Mathematics Action Plan to reflect workgroup comments (Dr. Doran).
   e. January 10 conference call with Dr. Bobby Kanoy, Senior Associate Vice President for Academic and Student Affairs, University of North Carolina System, on North Carolina's strategies for instituting a 4th unit as university admission requirement (Dr. Doran).

2. The workgroup will suggest a direction for the agenda for the January 26. 2006 joint meeting of the SBE and THEC.